

We trust that readers are intelligent enough to realize that all text herein consists of personal comments and does not represent the official policies or positions of any party. Your mileage may vary. So there.

Date: 5 Apr 91 21:36:00 GMT
From: news-mail-gateway@ucsd.edu
Subject: (none)
To: info-hams@ucsd.edu

Signoff info-hams Martin McCormick

Date: 5 Apr 91 15:53:20 GMT
From: swrinde!elroy.jpl.nasa.gov!sdd.hp.com!hp-pcd!hplsla!bobc@ucsd.edu
Subject: 2m thru-glass ant question
To: info-hams@ucsd.edu

The commercial antenna is a 1/2 wave antenna. Unlike a 1/4 wave antenna it does not require a ground plane, although a grounding plate is usually provided to help during the initial tune-up.

Was the QST antenna a 1/4 wave design?

Bob Cutler
KE7ZJ
Hewlett-Packard
Everett, WA

Date: 4 Apr 91 19:38:00 GMT
From: hpl-opus!hpnmdla!alanb@hplabs.hpl.hp.com
Subject: [chuck: a few fundamental questions about RF signals]
To: info-hams@ucsd.edu

In rec.radio.amateur.misc, mig@cunibx.cc.columbia.edu (Meir) writes:

>Do you think there is a way to get my TS-430S to load a transducer at, say,
>160m? Is there any regulation of ultrasonics in various mediums? Is this
>dangerous to animal life in the medium? Could we have a SSB QSO through the
>ocean, using ultrasonics?

The wavelength of a 1.8 MHz ACOUSTICAL signal in air is extremely short. Assuming a phase velocity of 1000 feet/sec, the wavelength would be

1/1800 feet or 170 microns (millionths of a meter). This presents two problems:

Does air support wave propagation at this frequency? (Dunno)

What do you do for a transducer? The size of most acoustical transducers is on the order of a wavelength or smaller. That's why the tweeter in your speaker system is smaller than the woofer. A transducer on the order of 170 microns (1/150 inch) is going to be very difficult to construct and probably won't generate much volume.

A 1.8 MHz acoustical signal is the rough equivalent of a 1.8 THz (1800 GHz or 1,800,000 MHz) radio signal, since the ratio of the speed of light to speed of sound is about a million-to-one.

AL N1AL

Date: 5 Apr 91 23:03:32 GMT
From: sdd.hp.com!news.cs.indiana.edu!ux1.cso.uiuc.edu!phil@ucsd.edu
Subject: ATV: AM or FM
To: info-hams@ucsd.edu

smith@sndpit.enet.dec.com (Willie Smith) writes:

>I'm familiar with VSB, but it seems that most amateur AM TV gear is DSB,
>and people use it because "The extra sideband is down far enough that it's
>not going to bother anyone." I was hoping to set the deviation of the FM
>TV signal so that the bandwidth was 6 MHz at -40 dB, and assume the extra
>sidebands are down far enough that they won't bother anyone... Does this
>buy me anything, or are the FM sidebands more significant than that?

These sidebands CAN bother SOME people. This can affect weak signal work.

Also remember that while FCC rules do specify maximum levels of signal strength off frequency and out of band, you are ultimately responsible for any interference caused, even if you exceed those requirements. Those requirements are enforceable even when there is no interference.

>And the easy use of FM amplifiers, and the lack of expensive and bulky VSB
>filters, and higher average power. All of which are the reasons I want to
>use it (hey, AM is old hat, I wanna be on the bleeding edge!).

And that is why I am interested in a frame averager, which won't work nearly as well with the snow on an FM TV signal.

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/*****\

/ Phil Howard -- KA9WGN -- phil@ux1.cso.uiuc.edu \

\ Lietuva laisva -- Brivu Latviju -- Eesti vabaks /

*****/

Date: 5 Apr 91 23:49:25 GMT
From: kodak!ornitz@cs.rochester.edu
Subject: Dielectric Sealers (ISM Devices)
To: info-hams@ucsd.edu

In article <9104051400.AA15819@ucsd.edu> BUSH@s51.PRime.COM writes:

>HELP! Industry is invading our 10 Meter band! There are several
>industrial RF devices, perhaps poorly configured RF thermoplastic
>sealing machines, which have invaded our 10 Meter amateur band.
>You may not even be aware of it, but some of the serious noise,
>swishing, buzzes, squeals and drifting garbage is what we NEED TO
>LOCATE and have the FCC take action on.

>...

>When the band is open from my area to the South Central part of
>the continent (perhaps Texas or New Mexico) I hear most of this
>trash. Specifically, what you will hear are unstable, cyclic and
>drifting AC modulated signals cross great portions of 28.5 to
>29.5 Mhz.

>

>Gathering accurate information on the specific problem is a must
>if we are to keep our bands clean. Although everyone's effort is
>important, please don't provide the FCC with "wild guesswork".
>The closer we are able to get to the actual industrial firm or
>acutal [sic] address, the better.

>...


>Lets get industry off our non-shared band! 73, Roger, W10J.

>Packet mail at: W10J@KA1SRD.MA.USA.NA

Dielectric sealers usually operate in the CB band at 27.12 MHz. The acceptable frequency tolerance is +/- 163 kHz. They are covered in the FCC rules and regulations in Part 18, Industrial, Scientific and Medical Equipment. Rules on the elimination and investigation of harmful interference are covered in Part 18 as are technical standards. You should be able to find these rules at any public library in the Code of Federal Regulations. Note particularly the formulae for maximum field strength limits. Also consider that many dielectric sealers operate at the 10 to 20 kW power levels.

I would like more information as to drift, duty cycle, etc. on the signals you are hearing. These units often use raw AC with the transmitting tube providing self-rectification; others use multiphase power with rectifiers but no filters. However, all of the units I have worked with have been extremely stable considering they are self-excited oscillators. They stayed well within

I suspect you may be hearing atmospheric sounders, particularly as the MUF goes above 30 MHz. ISM devices should not be ruled out however. I would advise continued monitoring before starting a massive mail campaign. Maintaining a log of the times, characteristics of the signals, and tape recordings would be helpful.

The Kodak logo, featuring the word "KODAK" in a bold, sans-serif font, with a stylized "K" and "D" that are slightly larger and more prominent. The logo is enclosed in a rectangular border with a dashed line on the right side.

Storm Alert Cancellation

The geomagnetic storm has ended. Activity has returned to generally unsettled conditions. The period of most intense activity occurred within the first few hours of the interplanetary shock. Minor storming was observed for about six to nine hours following the SSC. Most of the magnetic storming was of low intensity, although higher latitudes did experience periods of

major storming.

Auroral activity was visible as far south as about 45 degrees north latitude. Generally moderate activity was observed over the northerly middle latitudes, while high latitudes experienced periods of high auroral activity.

HF propagation conditions were not seriously affected by this minor storm. Higher latitudes experience the worst conditions, with significant flutter fading and higher than normal levels of absorption and noise. Conditions are returning to normal.

No warnings are in progress at the present time.

The following alerts remain IN PROGRESS:

- SATELLITE PROTON EVENT ALERT

/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\

Date: 5 Apr 91 17:09:17 GMT

From: pa.dec.com!shlump.nac.dec.com!ryn.mro4.dec.com!ultnix.enet.dec.com!
taber@decwrl.dec.com

Subject: Iambic?

To: info-hams@ucsd.edu

|>In article <".5-Apr-91.11:20:07.GMT".*.hugh_davies.wgc1@rx.Xerox.com>
|>hugh_davies.wgc1@rx.xerox.COM writes:
|>>If an iambic keyer always sends an element at end of a character, of
|>the
|>>opposite sense to the one you've just sent, e.g. *you* send
|>dah-di-dah and *it*
|>>tags on another dit to make a 'C', then how do you send characters
|>that end in
|>>two elements the same, like an 'L', or 'G'???

The description of keying you're reacting to is what Curtis calls "B" keying. It's for high speed when you can't get off the paddles fast enough to end on a dit. In "A" mode keying, the keyer finishes whatever element (dit or dah) you were sending when you let go of the key and stops. Most keyers today use "B" mode keying, but not all.

It's important to note that the keyer only does the "send opposite element" trick when you have both paddles squeezed and then let go. If you only let go of one paddle, the keyer switches to the appropriate element for the paddle still held. So in the cases you ask about, you'd

grab both paddles for an instant and then let go of one. Thus "L" or "G" work out just fine.

--

>>>==>PStJTT

Patrick St. Joseph Teahan Taber,

KC1TD

If I was authorized to speak for my employer, I'd be too important to waste my time on this crap....

Date: 5 Apr 91 23:42:17 GMT

From: agate!eos!aio!lark.jsc.nasa.gov!kell@uchvax.berkeley.edu

Subject: Iambic?

To: info-hams@ucsd.edu

In article <".5-Apr-91.11:20:07.GMT".*.hugh_davies.wgc1@rx.Xerox.com>, hugh_davies.wgc1@rx.xerox.COM writes...

>If an iambic keyer always sends an element at end of a character, of the
>opposite sense to the one you've just sent, e.g. *you* send dah-di-dah and *it*
>tags on another dit to make a 'C', then how do you send characters that end in
>two elements the same, like an 'L', or 'G'???

>

>Hugh, G0CNR.

This being the one that started this thread, I feel strange answering this question, but here goes. If I err, somebody PLEASE correct me - gently please.

There are TWO kinds of IAMBIC keyers. In a single chip version, they can be found as the Curtis 8044 and the 8044B. Type 1, the 8044 works as follows. Press the dah side and get - - then hit the dit side and release both paddles for a final . and you got - - . If you wanted - - . - then hold the dah side a while longer. Type 2, the 8044B works as follows, do the same as above, press the dah and get 2 dahs, then press the dit side (holding dah also), and then release both and the keyer will give a dit AND THEN another dah. This is - - . - So Hugh wants to know how to get - - . According to other answerers, one does this, press dah for two dahs and RELEASE dah and then press dit for the following - - .

After that, I'm not sure I can type anymore. One of my respondents says its easy. Well, we'll see someday.

The IAMBIC part comes from "iambic pentameter" accenting in poetry where you have a series of unaccented syllables followed by accented ones as in da DUM da DUM da DUM ... Ah the poetry of life.

So, how far off am I?

Thanks for all the help, I appreciate it.

Ted Kell

Date: 4 Apr 91 20:07:30 GMT
From: hpl-opus!hpnmdla!alanb@hplabs.hpl.hp.com
Subject: IAMBIC keyer - What does IAMBIC mean?
To: info-hams@ucsd.edu

Date: 5 Apr 91 20:36:03 GMT
From: swrinde!zaphod.mps.ohio-state.edu!usc!apple!kchen@ucsd.edu
Subject: iambic keyers
To: info-hams@ucsd.edu

oo7@ut-emx.uucp (Derek Wills) writes:

>How many people actually form the characters this way? I use an iambic keyer
>at our club station, but I do it the 'hard' way, as if it were a non-iambic
>keyer. Does this make me a lid?

Hmmm, guess I am another lid since I also use Iambics the way
Derek describes it. Come on now, admit it; lots of you do it
this way! :-) Afterall, it is easier to switch between a
Type 'A' and a Type 'B' Iambic if you treat it as a simple keyer.
:-) :-)

BTW, I can receive morse faster than I can send it. Perhaps I
am bottlenecked by the way I am (ab)using an Iambic keyer.

73,

Kok Chen, AA6TY kchen@apple.com

Date: 5 Apr 91 21:44:56 GMT
From: swrinde!zaphod.mps.ohio-state.edu!rphroy!rinhp825.gmr.com!vbreault@ucsd.edu
Subject: iambic keyers
To: info-hams@ucsd.edu

For my Christmas present this year I fulfilled a thirty-some year longing and got serious about getting into amateur radio. I had already spent a month making sure that it was what I REALLY wanted so I went out and bought enough stuff to get started. Among the goodies was a swell Vibroplex iambic key and a nifty keyer. I went home to set things up but noticed that the documentation didn't offer any suggestions about how to wire it up (left paddle dit or right paddle dit) or which hand is normally preferred (key with left or right hand). I guess anyone that has been doing it for more than a few months knows this kind of painfully simple stuff already. I'm just beginning and I'd really hate to develop a clumsy style or learn something that I'd have to un-learn later. What's the consensus gang?

Oh, for what it's worth... Yes, I passed the 5wpm test, but 13 may take me a little while. The novice, tech and general written exams seemed pretty easy. Perhaps I over studied.

Val Breault N8___ <-- 2 weeks and counting
vbreault@gmr.com

Date: 6 Apr 91 00:02:59 GMT
From: news-mail-gateway@ucsd.edu
Subject: NASA Prediction Bulletins: Space Shuttle
To: info-hams@ucsd.edu

The most current orbital elements from the NASA Prediction Bulletins are carried on the Celestial BBS, (513) 427-0674, and are updated several times weekly. Documentation and tracking software are also available on this system. As a service to the satellite user community, the most current elements for the current shuttle mission are provided below. The Celestial BBS may be accessed 24 hours/day at 300, 1200, or 2400 baud using 8 data bits, 1 stop bit, no parity.

STS 37

1	21224U	91 27 A	91 95.65050502	.000000248	000000-0	32191-5 0	16
2	21224	28.4682	238.4333	0008760	266.0250	93.9346 15.37932365	10

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Dr TS Kelso	Assistant Professor of Space Operations
tkelso@blackbird.afit.af.mil	Air Force Institute of Technology

Date: 5 Apr 91 20:52:08 GMT
From: pa.dec.com!shlump.nac.dec.com!sousa.enet.dec.com!sndpit.enet.dec.com!
smith@decwrl.dec.com

Subject: No-Code Testing Questions
To: info-hams@ucsd.edu

In article <31362@ucsd.Edu>, brian@ucsd.Edu (Brian Kantor) writes...

>>In article <1991Apr4.174647.5669@netcom.COM>, edg@netcom.COM (Ed
>>Greenberg) writes:

>>One big difference is that the Technician who wishes to operate HF
>>must

>>retain the documentation FOREVER, and it's not replacable.

>

>What I think most discussants in this continuing story are missing is
>that point that the FCC has essentially said that whether you've passed
>the code test or not isn't really very important to them. My guess is
>that they really don't care at all - only pharisaical fellow hams are
>going to get all hot and bothered.

In fact, I raised the possibility to a guy from the ARRL (in another forum)
that if one of his 00s hears someone with a tech call operating in the
Novice/Tech HF bands at 5WPM (and they couldn't find any internal ARRL
documentation to attest to his having passed the code), they should assume
he knows the code at 5WPM and mail him the CSCE! Didn't get much of a
response.... :+}

Willie Smith
smith@sndpit.enet.dec.com
smith@sndpit.enet.dec.com@decwrl.dec.com
{Usenet!Backbone}!decwrl!sndpit.enet.dec.com!smith

Date: 5 Apr 91 20:08:49 GMT
From: swrinde!elroy.jpl.nasa.gov!jpl-devvax!jenkins@ucsd.edu
Subject: Scanner ban - here are the FACTS
To: info-hams@ucsd.edu

In article <9114@rsiatl.Dixie.Com> jgd@Dixie.Com (John G. DeArmond) writes:
>But Steve, you've mistaken me for someone who gives a sh*t about whether
>hams take me seriously.

Then why bother posting?

>John De Armond, WD40QC	"Purveyors of speed to the Trade" (tm)
>Rapid Deployment System, Inc.	Home of the Nidgets (tm)
>Marietta, Ga	
>{emory,uunet}!rsiatl!jgd	"Politically InCorrect.. And damn proud of it

--

Steve Jenkins N6UNI jenkins@jpl-devvax.jpl.nasa.gov

Caltech/Jet Propulsion Laboratory (818) 354-0162

Date: 5 Apr 91 17:52:22 GMT
From: twg.com!sawyer@princeton.edu
Subject: The first No-Code Ham is.....(DRUMROLL).....
To: info-hams@ucsd.edu

In article <11806.27f641a1@zeus.unomaha.edu> acmnews@zeus.unomaha.edu (Paul W. Schleck KD3FU) writes:

>... will have a unique place in ham history as the first U.S. Amateur
>to become licensed without demonstrating proficiency in International Morse
>Code. I think a hearty congratulations to Robert is in order.

Give me a break. Congratulations for NOT knowing something? If I'd come in
by this back door route I sure wouldn't be out advertising it in public. Let
the guy take his rightful place next to the mail-order Ph.D's.

AA6KX

Date: 5 Apr 91 22:40:04 GMT
From: sdd.hp.com!think.com!snorkelwacker.mit.edu!primerd!cunix7.prime.com!
aardvark@ucsd.edu
Subject: Tube designations...
To: info-hams@ucsd.edu

In article <21626@shlump.nac.dec.com>, koning@koning.enet.dec.com (Paul Koning) writes:

|>
|> |>
|> |>Over this side of the pond, we have our own tube numbering
conventions;
|> |>these result in some wierd and wonderful ways to say the same thing
as the
|> |>familiar US designations. You all know what a 6L6 is (dont you?),
but what
|> |>the hell is an EBC33?
|>
|> Actually, it tells you MORE: all the US code tells you is the
filament
|> voltage.

Not quite true. You might argue that the European designation tells
you
more, but the US designation DOES tell you more than just the filament

voltage. This is better than the OLD designations which told you the manufacturer (sometimes) and a catalog number (e.g., CX-380) and later only the catalog number (e.g., 80). (For those wondering, a CX-380 is a Cunningham Radio 80; the RCA version was a UX-280 and everyone else made a X-180. The whole situation was deemed silly and they all went to just making an 80.)

The last number tells you the number of elements in the tube (in the case of a 6L6, there are 6). The letter indicates a specific instance of the tube, starting at the bottom (A, B,...) typically being amplifiers (e.g., 6AB6) and from the top (Z, Y,...) being rectifiers (e.g., 5Y3).

A suffix letter is a revision of a specific tube. A G indicator defines the bulb style for octal base tubes:

- no indicator - metal case

- G - glass bulb (the large version that flared out)

- GT - glass tubular bulb (straight sides)

A revision letter may also follow (e.g., GTB).

An S as the first letter of a two letter designator indicates a single ended version of a tube (e.g., a 6SK7 is a single ended version of a 6K7).

There are a few apparent exceptions to the rules, a 6AL5 is a dual signal diode (it can be used as a rectifier). Also, tubes starting with a 7 are still 6.3 volt filaments, but have a loctal base.

(I wish I had my father's copy of the Radiotron Handbook; it has the best description of all this.)

```
|> |>          Pete Lucas PJML@UK.AC.NWL.IA  G6WBJ@GB7SDN.GBR.EU
|>  paul, nt1d
```

--

Don Koch, nt1l

aardvark@primerd.prime.com

These are only my opinions and not necessarily those of my employer.

Date: 5 Apr 91 18:35:34 GMT

From: news-mail-gateway@ucsd.edu
Subject: W9YH / Synton / Univ of Illinois ARC
To: info-hams@ucsd.edu

I have a couple of questions for members of Synton, the Univ. of Illinois ARC. Could a current member please contact me via direct e-mail?

Thanks -

Mike Owen W9IP/2
MROWEN @ STLAWU

Date: (null)
From: (null)
iambic -- [relating to] a metrical foot consisting of one short syllable followed by one long syllable ...

In the context of a Morse code keyer, it means that if you press both the dot and dash levers at the same time, the keyer will produce a continuous stream of dot-dash-dot-dash, etc.

So to send a period (.-.-.-), for example, you just press the dot lever, quickly followed by the dash lever, and hold both closed until the end of the character.

AL N1AL

Date: 5 Apr 91 22:58:47 GMT
From: sdd.hp.com!news.cs.indiana.edu!ux1.cso.uiuc.edu!phil@ucsd.edu
To: info-hams@ucsd.edu

References <2646@ke4zv.UUCP>, <1991Apr2.071321.27899@ux1.cso.uiuc.edu>, <2679@ke4zv.UUCP>
Subject : Re: ATV: AM or FM

gary@ke4zv.UUCP (Gary Coffman) writes:

>>I am interested in doing things with VERY WEAK TV signals. I am talking
>>about so weak that visually they appear to be just P0, you MIGHT be able
>>to tell there is a sync bar in there sometimes.

>Under those conditions, VSB AM will hold an edge, but when you want
>usable pictures rather than just detecting that something is there,

>FM will win.

And what I am interested in really doing is averaging several (100's) of frames together. Memory is getting cheap enough and fast enough to make theu worthwhile. It could also be done on broadcast TV, but they usually do not hold the picture steady long enough. Of course it is popular to capture test patterns, too.

>The TV picture modulation is highly redundant, especially in the sync
>region. This gives a coherent pattern in the modulation that is rather
>easy to lock on to. Therefore the loop constants in the detector can
>be optimized for the expected signal. This is a big advantage over
>the more random FM voice modulation we are familiar with. A well designed
>FM TV receiver will will outperform the diode detector in AM schemes
>by a substantial margin.

I guess the parameter I am interested in is at what point a 3db difference in signal strength will cause a 3db difference in S/N ratio. This point would be different for different modulating frequencies and deviations.

>There is a standard called RS170A that we have to adhere to for color
>transmission. It specifies a very tight and very specific timing relationship
>between all of the timing signals in a TV waveform. Basically the color
>subcarrier must be phased so that it is at zero crossing, heading in a
>positive direction at the 50% point of the rising edge of horizontal
>sync on line 10 of field two. This allows precise color framing for
>electronic editing and switching. Unless this specification is rigidly
>adhered to, there will be horizontal shifts or hue changes at switch points.

That would not be difficult to do.

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/*****\
/ Phil Howard -- KA9WGN -- phil@ux1.cso.uiuc.edu \
\ Lietuva laisva -- Brivu Latviju -- Eesti vabaks /
\*****/
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End of Info-Hams Digest
